

WHAT IS CLAIMED IS:

1. A method for reducing moiré in a halftoned image formed using a halftoner, comprising:
 - determining moiré zones in the full field of the image; and
 - adjusting each moiré zone in the halftoner memory to reduce the moiré intensity profile of the image.
2. The method of claim 1, further comprising determining an average moire profile for a given image intensity in at least one moire zone.
3. The method of claim 1, wherein the halftoner comprises high addressability units and adjusting the high addressability units in all moire zones.
4. The method of claim 1, further comprising generating an inverse moire profile.
5. The method of claim 1, wherein the moire profile includes a plurality of component moire profiles at different frequencies.
6. The method of claim 5, wherein the frequencies are in a range from about 0.1 cycles per inch to about 100 cycles per inch.
7. The method of claim 1, further comprising zeroing the moire profile in all zones for a given image intensity level.
8. The method of claim 1, further comprising zeroing the moire profile in all zones for a predetermined number of image intensity levels.
9. The method of claim 3, wherein the high addressability units further comprises determining moire adjustment values which are based on a folded zone equation.
10. The method of claim 1, wherein adjusting the high addressability units comprises repeated adjusting.
11. The method of claim 1, further comprising storing results of the adjusting in the halftoner.
12. The method of claim 1, wherein determining the moiré phase angle zones in the full field of the image comprises using a full-field moiré intensity function.
13. The method of claim 11, further comprising defining the moiré intensity function as having at least one sinusoidal component.
14. The method of claim 1, wherein the moiré is due to use of irrational halftone dots.

15. The method of claim 1, further comprising determining at least one of a frequency and an angle of the moiré.
16. The method of claim 14, further comprising determining an intensity of the moiré as a function of a halftoner addressability unit.
17. The method of claim 1, further comprising outputting halftone images.
18. The method of claim 17, further comprising determining which output image has the lowest observable moiré.
19. The method of claim 1, further comprising determining moiré amplitude within a two-dimensional halftone coordinate system.
20. The method of claim 1, further comprising generating the halftone image using irrational halftone angles.
21. The method of claim 1, further comprising:
generating a simulated output image; and
evaluating the simulated output image.
22. An image forming device having a halftoner memory usable to reduce moiré in a halftone image containing halftone cells, comprising:
a moiré phase angle zone determiner that determines moiré amplitude for the full field of the image and the folded field of the halftoner memory;
a comparator that compares the full field moiré phase angle zones to moiré phase angle zones in the folded field of the halftoner memory;
an adjustor that adjusts high addressability units of the halftoner memory to reduce a moiré intensity profile of the image on a halftone cell basis; and
a modulator that modulates a light beam to generate an output image having reduced moiré.
23. The image forming device of claim 22, wherein the moiré intensity profile is determined using a full-field function.
24. The image forming device of claim 22, wherein the moiré intensity profile is determined using a folded field function.
25. The image forming device of claim 22, further comprising at least one of a moiré frequency determiner and a moiré angle determiner.
26. The image forming device of claim 22, wherein the moiré intensity profile is determined as a function of a halftoner addressability unit.

27. The image forming device of claim 22, further comprising a determiner that determines which amplitude and phase result in an output image having a reduced observable moiré.

28. The image forming device of claim 22, wherein the moiré phase angle determiner operates within a two-dimensional halftone coordinate system.

29. A device having a halftoner memory usable to reduce moiré in a halftone image containing halftone cells, comprising:

a moiré phase angle zone determiner that determines moiré amplitude for the full field of the image and the folded field of the halftoner memory;

a comparator that compares the full field moiré phase angle zones to moiré phase angle zones in the folded field of the halftoner memory;

an adjustor that adjusts high addressability units of the halftoner memory to reduce the moiré intensity profile of the image on a halftone cell basis; and

a halftoner memory that provides an indication of the reduced moiré image.

30. The device of claim 18, wherein the image forming device is a hyperacuity image forming device.